



2004

PEUGEOT 206 1400 CHALLENGE

BUILD BOOK



GROUP	PART NUMBER	DESCRIPTION	Qty	NOTES (no comment = straight swap for original part)
ENGINE	2010	Sump with baffles	1	Increased capacity to take 5 litres at the standard dipstick high mark.
	1016/4	Trapdoor	2	Make sure the three trapdoors are fitted to the oil pump pickup side of the baffles.
	2021	Oil catch tank + cap + hose	1	Re-use only the cam cover push fit adaptor by cutting off the original breather hose, and fitting the new hose and one rubber cap. Drill the centre of the catch bottle lid to take the hose, plus one or two smaller vent holes. Cap the inlet manifold with the other rubber cap. Tie wrap the bottle near the battery box.
	2020/1	Air cleaner	1	Fits directly onto the throttle housing.
	2020/2	Cold air trunking	1	The front spoiler main grille is modified by cutting out the blanked out LH section, but retaining the horizontal or honeycomb ribs. Route the trunking from here to exit close by the air cleaner, tie wrap in place.
	2405	Aviation fuel line kit - in-car	1	Routed from the pump outlet, through the existing grommet hole which then must be sealed, along the RH floor, inside the roll cage but away from the tunnel exhaust heat. Cut a hole through the front bulkhead between the throttle pedal and RH wheelarch, to take a tight fitting grommet. Re-use the two series straight plug-in fuel connectors from the standard front hose, and connect the ends to the fuel rail and tank unit using the supplied Pro-clamps. The tank breather is modified as per Technical Regulations.
	2065	Exhaust downpipe	1	Use the bolt / spacer / nut between the gearbox casing and the downpipe steady bracket. The green code lambda sensor stays in the exhaust manifold.
	2066	Exhaust interpipe with catalyst	1	Fit the blue code lambda sensor into the exhaust interpipe front holder, route the cable around the rear of the gearbox and tie-wrap away from the driveshafts. The threaded sensor bosses either side of the catalyst are for emission checks, but run with the sensor plugs wire locked in place.
	2067	Exhaust rear silencer	1	

TRANSMISSION	1002	Clutch plate	1	
	1003	Clutch cover	1	
	2112	Engine / gearbox mounting kit	1	After pressing out the rear lower rubber, ensure the competition version is aligned with the solid rubber webs parallel to the ground. Fit the spacer onto the series gearbox support plate spindle before lifting the gearbox into the mounting rubber. The RH vertical rebound rubber replaces the fixing nut, drill the safety strap to take the threaded nylon spacer before fitting the strap.
	2111	Gearchange kit	1	The three rose jointed cross rods replace the series versions, adjusted to the same lengths. After grinding the back of each ball head rivet, one on the bellcrank, two on the main control rod, and the three on the gearbox and diff bracket, drift them out, leaving a 6,5mm hole for the 6,0mm caphead bolts. The small spacers are fitted one each side of each rose joint.
	1101	Limited slip diff	1	This is the quick way to check static diff preload:- Gearbox in neutral, one front wheel jacked free of the ground, and a torque wrench on the free wheel hub nut. New diffs are set around 40-45 lbs ft. which settles to 35 lbs ft. after 150-200 miles. This is a good compromise between too much understeer and good traction. Anything over 60 lbs ft. risks breaking driveshafts on high grip uphill hairpins, and below 15 lbs ft. means a rebuild as the friction plates have worn. The gearbox holds 2 litres of Total BV semi-synthetic oil.
	1102	Crown wheel	1	Is also the other half of the limited slip differential.
	1121/1	Pinion	1	The motorsport pinion is of the most popular threaded type, a C-clip type was introduced in late 2002, and Special Tuning can supply a conversion kit for the latest cars if required.
	7209/2	Wheel stud	16	Mild Loctite is recommended
	7206/1	Wheel nut	16	Torque to 60 lbs ft.

FRONT SUSPENSION	2202	Front strut assembly- RH -gravel	1	Adjustable ride height lower pans, use the series thrust race between the top pan and the top strut mount.
	2203	Front strut assembly- LH -gravel	1	
	2205	Top strut mount - RH	1	Handed by means of the locating pins.
	2206	Top strut mount - LH	1	
	2601	Top strut reinforcing plate - pair	1	Weld completely around to the top side of the body after bolting through the outer set of holes, the extra holes must be inboard of the originals to give an optional negative camber position, which after welding can be drilled through, including the location pin holes. Finally cut the inner wing to match the inside plate profile and weld around.
	2207	Top spring pan	2	
	2208	Front spring -gravel	2	
REAR SUSPENSION	2220	Rear axle solid mount	4	Press out the standard rubbers, press these in with the boss face on top.
	2204/1	Top rear damper bolt + locknut	2	A stronger version of the standard type.
	2204	Rear damper - gravel	2	<p>The quick guide to rear ride height, which for gravel is a dummy shock length of 350,0mm and for tarmac 335,0mm.</p> <ol style="list-style-type: none"> 1. Car on stands, hydraulic or scissor jack under trailing arm just taking the weight of the arm. 2. Remove the torsion bar offset washers and Torx screws both ends. 3. Slide out the torsion bar to clear the splines (you may need a slide hammer as the splines tend to fill with road grit). 4. Move the trailing arm to achieve the dummy shock setting between the bolt centres (switched-on crews make a jig for this instead of a tape measure !). 5. Copaslip the splines, locate the new mating splines by slowly turning the bar until it slides home easily (they are vernier offset splines). 6. Refit the offset washers and Torx bolts. 7. Repeat on the other torsion bar.

BRAKES	2423	Front pad set	1	Mintex 1144 material in kit, option harder 1155 material is available if required.
	2420	Front caliper LH	1	
	2421	Front caliper RH	1	
	2422	Vented brake disc	2	Not handed.
	2413	Fly off handbrake lever	1	
	2425	Hydraulic handbrake kit	1	
	4002	AP 600 brake fluid	2	500 ml each, enough for a new car fill.
	1423	Brake bias adjusting valve	1	
	2406	Aviation brake line kit	1	<p>After fitting kit, brake bleeding must be made on opposite corners at the same time. Do not force heavily on the brake pedal at the bottom of each stroke, you risk damaging the servo internal diaphragm.</p> <p>When the handbrake lever is fully down, adjust the cylinder pushrod so there is free play, otherwise the rear circuit may hold air.</p> <p>See attached diagram for brake line layout.</p> <p>With the AP Racing bias valve fitted to the RH side of the master cylinder support, the lever fully forward gives full front brake bias, then seven clicks to the rear for fine tuning, to full rear bias.</p>
CHASSIS	2500/1/2/3	Safety Devices CDS multipoint cage	1	<p>Follow the Safety Devices instruction sheet.</p> <p>The door trim panels will need modifying to clear the door bars. Keep this to a minimum around the lower door bin areas. You must remove the trim polystyrene boxes, but not the door side impact plastic boxes.</p> <p>Fit the trim panels under the rear side windows before the rollcage is fitted, firstly removing the leading edge fixing tags as there is only a small clearance between the main rollcage and the body.</p> <p>Roll cage padding must be fitted, to MSA Blue Book standard.</p>
	2606	Alloy sumpguard	1	
	2606/1	Sumpguard mounting kit	1	See attached drawings and text.

	2611	Alloy tankguard kit	1	Front edge to car floor, suggested three bolts per side. Side of guard to inner sill returns, two bolts per side. M8 support towers, one uses existing exhaust fixing point, other is new point. For extra location, suggest fixing front edge to tunnel centreline point.
	2315	Mudflap front	2	Specifically shaped to fit around front wing profile, fix using big head pop rivets.
	3641	Spare wheel ratchet strap	1	We recommend you also fit the optional 3640 alloy spare wheel post, particularly when carrying two spare wheels.
	4005	Sparco Rev seat	2	
	2609	Seat mount RHD driver	1	The taller of the two, and offset to the car centreline. Use the biggest possible washers with the floor fixing bolts.
	2610	Seat mounts RHD Co-driver	1	
	4013	Lumbar support	2	
	4001	Seat belts - Sparco	2	Before removing the standard pre-tensioning seat belts (and the airbags) disconnect the battery, and do not allow any electrical current, including ohmmeters, to get near the components, or else they may trigger. Take the motorsport belts, un-wrap the rear fixing eye buckles, they are redundant, and re-buckle securely to the rear cage horizontal tubes. The Sparco belts have UNF eyebolts, drill the inner sill belt points to 9,4mm and re-thread to 7/16UNF. The inboard eyebolts screw into the new anchor plates to be fitted under the floor tunnel. The floor mounted seat belt buckles should be secured (with split pins or R-clips) through the pre-drilled lever holes.
	4011	Steering wheel	1	After disconnecting the battery and removing the airbags, they must be stored in a cupboard located in a secure area. Remove steering wheel and circular contact ring, held by four screws to the COM 2000 module. Remove redundant airbag wires, unplug the two horn wires at six o'clock revealing two pins. Solder two wires to pins, long enough to reach the Sparco horn push on both full steering locks. (The co-driver foot horn push can be spliced in at this point) Sheath the wires to stop chafing, fit two female Lucar connectors and connect to horn push button.
	4020	Steering wheel boss	1	
	4004	Battery master switch	1	Suggested location either radio/CD panel, or centre floor tunnel. See wiring diagram attached regarding shunt and cutout wiring, and use the correct battery type cable spliced into the positive side of the battery.

	4003	Pull cable	1	Location front LH screen wiper trim panel, next to external fire button, clear of wipers and bonnet, with mandatory safety decals fitted on the bonnet.
	4015	Electric fire bottle	1	
	4017	Plumbing kit	1	Two nozzles under bonnet, one at fuel rail, one at battery / brake reservoir. Two nozzles in cockpit, one at each footwell, but not at crews legs.
	4016	Trigger box	1	Follow the Lifeline wiring diagram. The battery test light checks the internal 9v battery, the centre position checks the two fire buttons, the armed position should only be used at the stage start line.
	4010	Hand held extinguisher	1	Must be within reach of crew with seat belts fitted.
	4000	Bonnet and tailgate pin set	2	See drilling template attached.
	7310	Co-driver footrest	1	Bolt to the floor after the co-driver has fixed their seat position.
	2460	Compomotive controlled road wheel	4	
Extra information				
Engine		Fuel vapour system change reminder		As per Technical Regulations, this method deletes the charcoal canister and its fuel lines, and replaces it with a safe fuel tank breathing method.
		Thermostat		Cut the two lugs and remove the centre section, then refit the outer section.
		Fuel filter		We have seen paint and debris from fuel jerry cans getting past the fuel pump mesh filter, so you may fit an in-line fuel filter under the bonnet, in the aviation fuel line, before the fuel rail connector.
		Running-in engine and gearbox		New cars and rebuilds, a minimum of 250 miles stop-start, not motorway, 500 is even better !
Chassis		Standard tie-down loops		You may remove the front chassis and rear damper tie-down loops fitted for car transporter use.